ABSTRACT

A device (D) for compressing digital image data by wavelet transform, the device including a processor (PM) having i) a module (M1) for transforming image data into wavelet coefficients distributed in sub-bands, ii) a module (M2) for estimating for each coefficient, first and second sets of prediction parameters, associated respectively with so-called north-south and west-east directions, based on values of wavelet coefficients of its north or south neighbors, iii) a module (M3) for quantifying the wavelet coefficients, and iv) an entropy coding module (M4) for determining for each coefficient prediction values of expectation and of the width of a Laplace function representing its probability density, based on the first and/or second sets of prediction parameters and on the wavelet coefficient quantified by its north neighbor or its west neighbor, and for entropy coding of the wavelet coefficients quantified via specific associated expectations and widths.